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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/088,996	03/26/2002	Hideo Arikawa	ZU-412	8985

21839 7590 07/16/2003

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EXAMINER

LEE, RIP A

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 07/16/2003

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/088,996

Applicant(s)

ARIKAWA ET AL.

Examiner

Rip A. Lee

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1 and 4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim lacks clarity because it is not certain how the recitation in parentheses further limits the subject matter of the claim. Amending the claim to state, "non-volatile film forming component," is suggested.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,578,674 to Speth *et al.*

Speth *et al.* teaches a film formed from an aqueous dispersion of one or more block copolymers containing a polymer block A consisting essentially of monovinylidene aromatic monomer and a polymer block B consisting essentially of a conjugated diene monomer (claim 1). The monomers are styrene and 1,3-butadiene or isoprene (claim 27).

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5. Claims 1, 2, 4, and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 3,988,275 to Satake *et al.*

The prior art of Satake *et al.* teaches a concentrated aqueous latex comprising at least one block copolymer of styrene and 1,3-butadiene or isoprene and 0.5 to 15 parts by weight of a higher fatty acid or a salt thereof (claim 1). Styrene-butadiene block copolymers are described in claim 7.

6. Claims 1-3 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,554,083 to Soldanski *et al.*

Soldanski *et al.* discloses a composition in the form of an aqueous dispersion made of 15-40 wt % of at least one wax selected from the group consisting of montanic ester wax (fatty acid compound), carnauba wax, and candelilla wax, 20-45 wt % of dispersible, film-forming aliphatic polyurethane resin, and 0-2 % of at least one water-soluble hydroxyalkylamine containing from 2-12 carbon atoms (claim 1). Said hydroxyalkylamines include mono- or diethanolamine (col. 4, line 38).

7. Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,948,860 to Hiraoka *et al.*

Hiraoka *et al.* teaches the formation of a polar group-containing olefin polymer obtained by heating an olefin polymer containing a carboxyl or anhydride group with an amino compound (claim 1). The amino compound is used in an amount of 0.01-10 parts by weight (claim 5), and said amino compound may be ethanolamine or 2-(2-aminoethoxy)ethanol (claim 8).

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According to the inventors, the polar group-containing olefin polymer may be prepared by dispersing the olefin polymer and amino compound in an aqueous medium, followed by heating the resulting aqueous dispersion (col. 9, lines 22-24). As such, this aqueous dispersion meets the compositional requirements of the present claims.

8. Claims 1-3 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,174,335 to Ohdaira *et al.*

Ohdaira *et al.* discloses an aqueous dispersion comprising 50-99 wt % of a carboxyl-free olefinic resin and 1-50 wt % of a carboxyl-modified olefinic resin and at least 0.2 equivalents of base, relative to the equivalents of carboxyl groups (claim 1). An example of base is ethanolamine (col. 6, line 43).

9. Claims 1-3 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,448,321 to Tokita.

The prior art of Tokita teaches an aqueous dispersion comprising (A) a thermoplastic copolymer and (B) an alkali salt of montanic acid, montanic acid or an ester thereof (claim 4). The amount of the second component is 0.5-30 parts by weight (claim 5). In another embodiment, 3-25 wt % of a basic substance is incorporated into the composition to partially neutralize or saponify the fatty acid ester (claim 10). An example of the basic compound is ethanolamine (col. 8, line 43).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

12. Claims 4-6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,448,321 to Tokita.

The discussion of the disclosures of the prior art of Tokita from paragraph 9 of this office action is incorporated here by reference. Although the prior art claims are directed to ethylene-vinyl compounds as the thermoplastic component (A) of the aqueous dispersion, the inventors also contemplate use of styrene block copolymers and styrene-butadiene copolymer in lieu of, or in combination with, ethylene-vinyl compounds (col. 5, lines 41-44; col. 6, lines 1-3). Therefore, it would have been obvious to one having ordinary skill in the art to use styrene-butadiene (block) copolymer as component (A) and motivated by the expectation that such an embodiment

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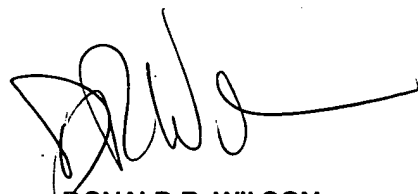
would work. The skilled artisan would find such an embodiment obvious because it is disclosed adequately in the prior art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rip A. Lee whose telephone number is (703)306-0094. The examiner can be reached on Monday through Friday from 9:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached at (703)308-2450. The fax phone number for the organization where this application or proceeding is assigned is (703)746-7064. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

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July 8, 2003



DONALD R. WILSON
PRIMARY EXAMINER